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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/672,890 | 09/26/2003 | Shamim M. Malik | 50623.258 | 9566 |

7590 02/01/2007
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| EXAMINER |
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DHINGRA, RAKESH KUMAR

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| ART UNIT | PAPER NUMBER |
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1763

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS | 02/01/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/672,890

Applicant(s)

MALIK ET AL.

Examiner

Rakesh K. Dhingra

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 15 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

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Election/Restrictions

Applicant's election without traverse of invention of group I (claims 1-14) in the reply filed on 11/29/06 is acknowledged.

Claims 15, 16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Specification

The disclosure is objected to because of the following informalities:

1) Page 7, line 21 – “lower plate member 30” may be verified for correctness since this does not match with Figure 2, wherein lower plate member has reference number 28;

2) The use of the trademark “Cesar RF source (page 9, line 1) has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

3) page 25, line 23 – “fluorinated alkanes” is repeated, which may be corrected.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-7, 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacob (US Patent No. 5,087,418) in view of Sirhan et al (WO 03/037223).

Regarding Claims 1-3, 7: Jacob teaches a plasma apparatus for treating medical devices (Figure 6) comprising:

- a wire basket 25 supporting the object to be plasma processed;
- an inner perforated cylinder 43 (first plasma member) circumscribing the wire basket 25, the first plasma member being grounded;
- a second metallic perforated cylinder 41 (second plasma member) circumscribing the first plasma member 43; and
- an RF source (plasma generating source) in communication with the second plasma member 41.

Jacob teaches a wire basket 25 for substrate support but does not teach that a mandrel for supporting a stent during plasma processing.

Sirhan et al teach a glow discharge apparatus (Figures 13-15) for film deposition on a stent 70 that is supported by a mandrel 112 (paragraphs 156-166).

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Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use a mandrel for processing a stent as taught by Sirhan et al in the apparatus of Jacob during plasma processing as per the shape of the substrate to be processed.

Regarding Claim 4: Jacob in view of Sirhan et al teach (Figure 10 – Jacob) where the elongated tabulation 94 (object to be treated – stent, in this case) is positioned in the center of the first hollow body {column 9, lines 15-40 - Jacob}.

Regarding Claim 5: Jacob teaches that substrate holder 25 (would include the substrate, that is, stent) does not contact the inner perforated cylinder 43 (first plasma member) [Figure 6].

Regarding Claim 6: Jacob in view of Sirhan et al teach an apparatus (Figure 10 – Jacob) in which the elongated chamber 91 (first plasma member) is a hollow tubular body in which the elongated tabulation 94 (like a mandrel with stent) is positioned and wherein the second plasma member is an exciter coil 92 wrapped around the elongated chamber 91 (first plasma member) [column 9, lines 15-45 - Jacob].

Regarding Claims 10, 14: Jacob in view of Sirhan et al teach all limitations of the claim (as already explained above under claim 1) including that the apparatus comprises:

A cylindrical outer wall 21 (first tubular member);

A perforated inner cylinder 23 (second tubular member) in which an implantable medical device can be placed (in wire basket 25), which is electrically isolated from the first tubular member (cylindrical outer wall 21) through insulating spacers 29; and

an RF source 22 in communication with the cylindrical outer wall 21 (first tubular member) [column 6, lines 15-55, Jacob; and paragraphs 156-166 – Srihan et al].

Regarding Claim 11: Jacob teaches that inner cylinder 23 is perforated. Though Jacob does not explicitly teach that outer cylinder 21 is perforated, he teaches another embodiment (Figure 2) wherein the apparatus comprises two tubular members 15, 15a both of which are perforated, to facilitate lower

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temperature processing (column 4, lines 10-60). It would thus be obvious to use outer cylinder 21 with perforations to facilitate low temperature processing.

Regarding Claim 12: Jacob teaches that plasma is generated within the outer cylinder 21 (first tubular body) with the help of RF source 22 (Figure 4).

Regarding Claim 13: Jacob teaches that outer cylindrical wall 21 is grounded. However the inner perforated cylinder 23 (second tubular body) could be grounded instead, depending upon the ease of grounding, need to ground the substrate holder (mandrel) as per process limitations and the overall electrical circuit scheme of the apparatus.

Claims 1, 8, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Usai et al (US Patent No. 5,591,268) in view of Sirhan et al (WO 03/037223).

Regarding Claim 1: Usai et al teach a plasma apparatus (Figures 6A, 6B) for processing wafers 19 comprising:

- an internal electrode 22 (first plasma member) circumscribing the wafers 19, the first plasma member being grounded;

- an external electrode 21 (second plasma member) circumscribing the first plasma member 43; and

- an RF source (plasma generating source) 18 in communication with the second plasma member 21 (column 9, lines 1-45).

Usai et al teaches processing of wafers 19 (it would obviously need a wafer support – not shown) but does not teach a mandrel for supporting a stent during plasma processing.

Sirhan et al teach a glow discharge apparatus (Figures 13-15) for film deposition on a stent 70 that is supported by a mandrel 112 (paragraphs 156-166).

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Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use a mandrel for processing a stent as taught by Sirhan et al in the apparatus of Jacob during plasma processing as per the shape of the substrate to be processed.

Regarding Claims 8, 9: Usai et al teach a flange 14 (first plate member) in communication with the first plasma member 22 through fixing metal pieces 22b, a flange 13 (second plate member) positioned over the first plate member 14 and in communication with the second plate member 13, and quartz process chamber 10 (insulator) disposed between the first and second plate members to electrically insulate the plate members (column 9, lines 1-45).

Regarding Claim 9: Usai et al in view of Sirhan et al teach the mandrel extends from the first plate member 14 into the first plasma member 22 (Figure 6A).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rakesh K. Dhingra whose telephone number is (571)-272-5959. The examiner can normally be reached on 8:30 -6:00 (Monday - Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on (571)-272-1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Rakesh Dhingra



Parviz Hassanzadeh
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Art Unit 1763